FRIEDMAN & BRUYA, INC. ENVIRONMENTAL CHEMISTS

Date of Report: April 24, 1997 Date Received: April 21, 1997

Project: Metro Self Monitor Grab, PO #M56926

Date Samples Extracted: April 21, 1997 Date Extracts Analyzed: April 22, 1997

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

Samples Processed Using Method 3005A Results Reported as mg/L (ppm)

Sample ID	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M56926	0.29	0.36	0.36	0.06
Method Blank	<0.05	<0.05	<0.05	<0.05

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QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 77331 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	0 41 /	0.38	0.37	3	0-20
Copper Nickel	mg/L (ppm) mg/L (ppm)	$0.27 \\ 0.23$	$0.27 \\ 0.23$	0 0 a	0-20 0-20
Zinc	mg/L (ppm)	< 0.05	<0.05	nm	0-20

Laboratory Code: 77331 (Matrix Spike)

	Reporting	Spike	Sample	% R	ecovery	Acceptance	Relative Percent
Analyte:	Units	Level	Result	MS	MŠD	Criteria	Difference
					A market has been been a find that the second of the secon		
Chromium	mg/L (ppm)	5	0.38	94	95	80-120	1
Copper	mg/L (ppm)	5	0.27	91	92	80-120	1
Nickel	mg/L (ppm)	10	0.23	97	95	80-120	2
Zinc	mg/L (ppm)	5	<0.05	98	98	80-120	0

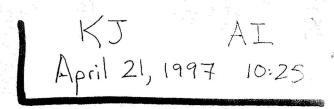
Laboratory Code: Spike Blank

Analuta	Reporting Units	Spike	% Re MS	covery MSD	Acceptance Criteria	
Analyte:	Units	Level		MSD	Criteria	<u>Difference</u>
Chromium	mg/L (ppm)	5	103	98	80-120	5
Copper	mg/L (ppm)	5	99	95	80-120	4
Nickel	mg/L (ppm)	10	103	103	80-120	0
Zinc	mg/L (ppm)	5	104	101	80-120	3

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282



SAMPLE CHAIN OF CUSTODY

Send Report To: 1		Works		Contact 7	ERACO Thomy	25,3-4	
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City, State, Zip Senda Phone # (26) 382-	rle WA	98134		Date 4-	21-97		
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7238		metro solf montax GRAB			M 56926 .		
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					Dispose after 30 day. Return Samples	s	
	Date/Time	Type of	# of	Lab	Call for Instructions Analyses		
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Received by:		3					

FORMS/COC

09/19/94

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Beth M. Albertson, M.S. Bradley T. Benson Kelley Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

April 24, 1997

INVOICE # 97ACU0424-2 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor Grab, PO #M56926: Results of testing requested by Gerry Thompson, Project Manager for material submitted on April 21, 1997.

FEDERAL TAX ID #(b) (6)

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

April 24, 1997

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on April 21, 1997 from your Metro Self Monitor Grab, PO #M56926 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

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Enclosures ACU0424R.DOC